

In the Claims

Please substitute the claims as indicated below for the claims of the same number.

Claim 1. (currently amended): A method of processing a blood product containing a low molecular weight psoralen compound, said method comprising contacting said blood product with a hypercrosslinked resin under conditions effective to remove at least substantially all of said low molecular weight psoralen compound free in said blood product.

A method of treating a blood product which contains a nucleic acid-containing pathogen to be inactivated, said method comprising

a) forming a mixture comprising said blood product, free psoralen, and low molecular weight psoralen photoproducts; and

b) contacting said mixture with a hypercrosslinked resin to remove at least substantially all of said free psoralen and said low molecular weight psoralen photoproducts.

Claim 2. (currently amended): The method of claim 1 wherein said low molecular weight psoralen compound comprises an aminopsoralen selected from the group consisting of 4'-primary amino-substituted psoralen and 5'-primary amino-substituted psoralen.

Claim 3. (original): The method of claim 1 wherein said blood product comprises plasma.

Claim 4. (original): The method of claim 1 wherein said hypercrosslinked resin is not pre-wetted prior to said act of contacting said mixture with said hypercrosslinked resin.

Claim 5. (currently amended): The method of claim 1 wherein said hypercrosslinked resin comprises a polyaromatic resin that is capable of adsorbing said free psoralen and said low molecular weight psoralen photoproducts compound.

Claim 6. (original): The method of claim 5 wherein said hypercrosslinked resin comprises a resin formed using styrene monomer.

Claim 7. (original): The method of claim 6 wherein said hypercrosslinked resin is formed using styrene and divinylbenzene monomers.

Claim 8. (currently amended): The method of claim 7 wherein said low molecular weight psoralen compound comprises an aminopsoralen selected from the group consisting of 4'-primary amino-substituted psoralen and 5'-primary amino-substituted psoralen.

Claim 9. (original): The method of claim 8 wherein said aminopsoralen comprises 4'-(4-amino-2-oxa)butyl-4,5',8-trimethylpsoralen.

Claim 10. (withdrawn): A method of removing free psoralen from a blood product, said free psoralen having been exposed to light having a wavelength that causes psoralen to covalently bind to a nucleic acid, the method comprising contacting said blood product with a macroreticular adsorbent resin having a network pore structure that is capable of removing said free psoralen; and removing at least substantially all of said free psoralen from said blood product with said macroreticular adsorbent resin.

Claim 11. (withdrawn): The method of claim 10 wherein said resin is selected from the group consisting of a polyaromatic resin having a mean surface area of about 1100 m²/gm, a mean pore diameter of about 46Å, and a mesh size of about 20-50µm; a polyaromatic resin having a mean surface area of about 725 m²/gm, a mean pore diameter of about 40Å, and a mesh size of about 20-60µm; and a functionalized polyaromatic resin having a mean surface area of about 800 m²/gm, a mean pore diameter of about 25Å, and a mesh size of about 20-50µm.

Claim 12. (withdrawn): The method of claim 10 wherein said resin comprises a hypercrosslinked polyaromatic resin.

Claim 13. (withdrawn): The method of claim 12 wherein said blood product comprises plasma.

Claim 14. (withdrawn): The method of claim 12 wherein said blood product comprises platelets.

Claim 15. (withdrawn): The method of claim 14 wherein said blood product further comprises a synthetic medium containing phosphate.

Claim 16. (withdrawn): The method of claim 12 wherein said resin is not pre-wetted prior to contacting said blood product with said resin.

Claim 17. (withdrawn): The method of claim 12 wherein said resin comprises a resin formed using styrene monomer.

Claim 18. (withdrawn): The method of claim 17 wherein said resin comprises a resin formed using styrene and divinylbenzene monomers.

Claim 19. (withdrawn): The method of claim 12 wherein said psoralen comprises an aminopsoralen selected from the group consisting of 4'-primary amino-substituted psoralen and 5'-primary amino-substituted psoralen.

Claim 20. (withdrawn): The method of claim 19 wherein said aminopsoralen comprises 4'-(4-amino-2-oxa)butyl-4,5',8-trimethylpsoralen.

Claim 21. (withdrawn): The method of claim 10 wherein said blood product is selected from the group consisting of plasma and platelets.

Claim 22. (withdrawn): The method of claim 10 wherein said psoralen comprises an aminopsoralen selected from the group consisting of 4'-primary amino-substituted psoralen and 5'-primary amino-substituted psoralen.

Claim 23. (withdrawn): The method of claim 10 wherein said psoralen comprises a brominated psoralen.

Claim 24. (withdrawn): The method of claim 10 wherein said psoralen comprises free psoralen and low molecular weight psoralen photo products, and wherein the act of removing said psoralen comprises removing at least substantially all of said free psoralen and removing at least substantially all of said low molecular weight psoralen photo products.

Claim 25. (Cancelled)

Claim 26. (Cancelled)

Claim 27. (withdrawn): A blood product formed by the method of claim 10.

Claim 28. (withdrawn): A blood product formed by the method of claim 15.

Claim 29. (withdrawn): A method of removing free psoralen from a blood product according to claim 10, wherein the blood product has a concentration of said free psoralen of no more than 1 μ M after the blood product contacts the macroreticular adsorbent resin for no more than 10 hours.

Claim 30. (withdrawn): A method according to claim 10, wherein said blood product comprises platelets and wherein the blood product has a pH of at least 6.5 after the blood product contacts the macroreticular adsorbent resin for no more than 10 hours.

Claim 31. (withdrawn): A method according to claim 10, wherein the act of contacting said blood product with said macroreticular adsorbent resin is performed without prewetting said macroreticular adsorbent resin with a wetting solution.

Claim 32. (withdrawn): A method according to claim 10, wherein the macroreticular adsorbent resin comprises a resin formed using styrene monomer.

Claim 33. (withdrawn): A method according to claim 10, wherein the macroreticular adsorbent resin comprises a resin formed using styrene and divinylbenzene monomers.

Claim 34. (withdrawn): A method according to claim 10, wherein said method further comprises agitating the blood product during said contacting and said removing.

Claim 35. (withdrawn): A method according to claim 34, wherein said blood product and said macroreticular adsorbent resin are within a hemocompatible housing and said agitating comprises shaking said hemocompatible housing.

Claim 36. (withdrawn): A method according to claim 10, wherein said method further comprises filtering said blood product with a filter to remove said resin from said blood product.

Claim 37. (withdrawn): A method according to claim 10, wherein said macroreticular adsorbent resin comprises a nonionic resin.

Claim 38. (withdrawn): A method according to claim 31, wherein said macroreticular adsorbent resin comprises a nonionic resin.

Claim 39. (withdrawn): A method according to claim 33, wherein said macroreticular adsorbent resin comprises a nonionic resin.

Claim 40. (withdrawn): A method according to claim 34, wherein said macroreticular adsorbent resin comprises a nonionic resin.

Claim 41. (withdrawn): A method according to claim 10, wherein said free psoralen comprises an aminopsoralen selected from the group consisting of 4'-primary amino-substituted psoralen and 5'-primary amino-substituted psoralen.

Claim 42. (withdrawn): A method according to claim 41, wherein said aminopsoralen comprises 4'-(4-amino-2-oxa)butyl-4,5',8-trimethylpsoralen.

Claim 43. (withdrawn): A method according to claim 10, wherein said blood product comprises plasma.

Claim 44. (withdrawn): A method according to claim 10, wherein said blood product comprises platelets.

Claim 45. (withdrawn): A method according to claim 44, wherein said blood product further comprises a synthetic medium containing phosphate.

Claim 46. (withdrawn): A method according to claim 10, wherein less than about 1% of an original amount of psoralen added to said blood product before said acts of contacting and removing remains after said acts of contacting said blood product and said hemocompatible macroreticular resin and removing said free psoralen.

Claim 47. (withdrawn): A method according to claim 10, wherein less than about 9% of an original amount of psoralen added to said blood product before said acts of contacting and removing remains after said acts of contacting said blood product and said hemocompatible macroreticular resin and removing said free psoralen.

Claim 48. (withdrawn): A method according to claim 10, wherein said hemocompatible macroreticular resin has a surface area between about 725 and 1100 m^2/gm .

Claim 49. (withdrawn): A method according to claim 34 wherein said hemocompatible macroreticular resin has a pore diameter between about 40 and 100 \AA .

Claim 50. (withdrawn): A method according to claim 48 wherein said hemocompatible macroreticular resin has a pore diameter between about 40 and 100 \AA .

Claim 51. (withdrawn): A method according to claim 10 wherein said hemocompatible macroreticular resin has a mean diameter between about 250 and 850 micron.

Claim 52. (withdrawn): A method according to claim 48 wherein said hemocompatible macroreticular resin has a mean diameter between about 250 and 850 micron.

Claim 53. (withdrawn): A method according to claim 49 wherein said hemocompatible macroreticular resin has a mean diameter between about 250 and 850 micron.

Claim 54. (withdrawn): A method according to claim 50 wherein said hemocompatible macroreticular resin has a mean diameter between about 250 and 850 micron.